



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF **PURE AND APPLIED SCIENCES**

DIPLOMA IN SCIENCE LABORATORY TECHNOLOGY
(DSL T 10S)

ABT 2305: HUMAN ANATOMY & PHYSIOLOGY

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: JULY 2013

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

This paper consists of 2 PRINTED pages

Question ONE

- a) Define the following terms
 - (i) Digestion (2marks)
 - (ii) Homeostasis (2marks)
 - (iii) Thermoregulation (2marks)
- b) Outline functions of the following cell organelles
 - (i) Mitochondria (1mark)
 - (ii) Lysosomes (1mark)
 - (iii) Golgi apparatus (1mark)
 - (iv) Smooth Endoplasmic reticulum (1mark)
 - (v) Ribosomes (1mark)
- c) Describe the nephron of mammals (5marks)
- d) Explain components of homeostatic mechanism (5marks)
- e) Describe the structure of small intestines. (5marks)
- f) Outline characteristics of an electrical synapse. (4marks)

Question TWO

- a) Discuss gaseous exchange at the respiratory surface. (10marks)
- b) Outline classification of neurons. (5marks)

Question THREE

- a) Discuss mechanism of neuromuscular Transmission in a chemical synapse. (10marks)
- b) Outline protein digestion in the small intestines (5marks)

Question FOUR

Discuss physiological mechanism of temperature regulation in mammals (15marks)

Question FIVE

- a) Discuss white blood cells as formed components of blood. (10marks)
- b) State type of synapses (2marks)
- c) State functions of the livers (3marks)